

WITH THE FARMERS

By Prof. W. F. MASSEY

Tuesday, February 17, 1914.

Tobacco for Green Aphids.

Lancaster County: notice in The Times-Dispatch that you advise putting tobacco stems in the furrows to prevent the green aphids, or lice, they are working on. I have tried this and it has entirely destroyed my crop last spring. How many stems should I put in each acre, and what will it cost to treat an acre?

W. F. Massey: Is sulphate or muriate of potash better to top dress clover? The tobacco stems are an excellent fertilizer, as well as a preventive of aphids, as they contain about 2.50 per cent of nitrogen, 8.50 per cent of potash, and about 1.70 per cent of phosphoric acid. They cost at the American Tobacco Company, Durham, N. C., \$5.50 a ton, and you can use them as liberally as you please. Perhaps they can be had in the cheaper in Richmond, but I have no price from there. I would scatter them uniformly along the furrows, and it will probably take from 300 to 500 pounds an acre, and they are worth the cost at a dollar. As an application on clover, there will be no difference between muriate and sulphate of potash.

Alfalfa Failure.

Southampton County: "I sowed two acres in alfalfa October 25th on what I have been growing clover for years. Applied a ton of lime an acre. The seed came up well, but now seems to have disappeared, and the land is covered with little blue weeds, and the alfalfa is to be seen in places. I used 500 pounds of acid phosphate and fifty pounds of the muriate of potash an acre. Would you advise sowing alfalfa again this spring, or would you put on the land? This land will make 100 bushels of corn an acre." The first mistake you made was in sowing the seed a month or more too late. You should have sown early in September, and you would have gotten a strong young to go into winter. In its very young state it is probably the only one that can stand the winter. In January destroyed it. I would not sow this spring, for it would surely be smothered by the crab grass. You can grow a good crop of early Irish potatoes on the land, and then put the alfalfa in the last of August or early September, and give it more of the acid phosphate and potash, but harrow these in a week before sowing the seed. Then it will be well to get a culture for inoculating the seed.

Helping Timothy.

Lousia County: "On land that was in corn last year and made thirty-five bushels of corn, and the land is now timothy. We are afraid that the timothy is too thick for the land and am afraid it will lodge. Have thought of topdressing with about fifty pounds of nitrate of soda an acre. Would not that have a tendency to prevent the lodging of sugaring by increasing the fertility of the soil and forcing the growth? When the grass is well applied it will greatly appreciate your advice and judgment, as we do not care to go to the expense unless it is probable that the result would justify it. If you are afraid that the grass will fall or lodge, the worst thing you could do would be to use nitrate of soda, as that gives a ranker growth and makes the grass so stiff that it will not be able to stand. The growth will be better, such as an application of acid phosphate or Thomas phosphate. The nitrate will certainly give you a heavier growth and more hay, but it will increase my tendency to sag or fall. The thickness of the grass on land of moderate fertility will hardly cause sagging unless the land is very rich. I wish to have it straighten it, though not making as heavy a growth as the nitrate will.

Peas and Corn.

Lousia County: "I have a naturally rich piece of land. I sowed it with cowpeas three years ago, and have never seen such a growth. They were about 1-4 feet high, and I had to move them away with a fork every time the mower came around. I got a heavy crop of corn, and it cut them, and they drew very heavily on the phosphorus and potassium of the soil, and your soil was poorer by the growing of the peas. You cannot improve the land by sowing peas and cut them. They must be used either as manure direct or fed and the manure returned to the land that grew them. The best way to get rid of the Bermuda grass is to smother it with peas. Now as to sweet clover, I would like to see the West and Northwest. I have never seen an animal eat it until I started into it, and once get it on your land and you will have another weed. I have no many better legumes in peas and clover than I cannot see any reason for the sweet clover in the South. We do not need it, as they do in the cold Northwest. Better sow red clover with the oats.

Nicotine for Caterpillars.

"Will nicotine answer as well for the aphids on young cabbage plants as the tobacco decoction? Concentrated chemical nicotine will be too strong to use on plants. There are some nicotine preparations made to use on plants very well, but if you use pure nicotine I would assume that it will be best to add at least 100 parts of water to one of the nicotine. It will certainly answer if properly diluted. I have a prepared article called Aphids, which is in a concentrated form and add forty parts of water to it, and find it effective. I use it as a spray. You can get this at any seedsmen's, and it will be cheaper than pure nicotine.

Shell Lime and Marl.

"I wrote to a firm for shell lime and they send me a letter saying that they have no lime, but can furnish me marl, which is 'just as good.' What do you think?" I think that I know nothing about the quality of their marl, but I do know that well-burned shell lime is far better for immediate effect than the best of marl. If you use marl that is high in lime carbonate you will have

to freight twice as much and spread twice as much an acre as lime, and then will not get as good immediate effect. And not knowing the quality of marl offered, I can only say that I had rather have 1,000 pounds an acre of good lime than a ton or more of the marl. And marl varies a great deal, and they give you no information in regard to the analysis of their marl.

Fertilizing Cowpeas.

"I have ten acres of light land which I expect to plant in cowpeas, and wish some advice in regard to fertilizing them. My idea is to use an 8-12-3 fertilizer, about 500 pounds an acre, and plant the peas in three-foot rows. What pea-will be the most prolific of seed to plant for seed to sell?" I would not buy such a prepared fertilizer, but would use simply acid phosphate and muriate of potash, for the peas can get all the nitrogen they need, and they need a larger percentage of potash than 3 per cent. To make a good pea fertilizer, mix 1,000 pounds of acid phosphate and 400 pounds of muriate of potash, and use this at rate of 500 pounds an acre, and it will be better than the mixture you propose and cheaper. Sow either the early New Era or the Speckled Whip-poorwill, as they make more peas than the late ones.

Chicken Manure.

"Will chicken droppings be a good manure for tomatoes? say about a shovel full to a hill? These droppings have had some lime mixed with them in the chickenhouse. Would this do any harm? I also have a lot of nice cow manure, and best to use it. I was thinking of putting either in the hills like we grow watermelons. The soil is very good? The lime will do no harm to the tomato plants, but doubtless has already done a good deal of harm to the chicken manure by driving off the ammonia. Lime should never be mixed with manure of any sort. It would be better to set the tomato plants and then put the shovel full around them on top of the ground, and you can use either, but better not put it in contact with the roots of the plants.

Japan Clover Again.

"I am interested in what is being published about Lespedeza or Japan Clover, and wish to try some sown with my spring oats. How about sowing it on wheat?" Some of the Southern papers have been making the mistake by recommending the Lespedeza without telling farmers that up in your Piedmont section, where it is now doubtless plentiful on every waste place, that its only value in the Upper South is as a summer pasture. You can never get it tall enough here to make hay of it, and I would never sow it with grain crops, but would sow it with cowpeas and soy beans and crimson clover in my cultivated land. The Lespedeza is all right on the pasture, and, as I have said, it is doubtless all around you on the roadsides and waste places. It will grow out of bloom and make a good summer pasture, but disappears with frost, and will never make a hay crop north of the lower Gulf States and the lower part of the Ohio valley.

Peas in Corn.

"Please advise me what pea is best for sowing among corn. My corn will be on crimson clover turned under and will be somewhat late, and I need an early pea. I was thinking of sowing the New Era, but can find no one except in the hands of seedsmen, and the price is high. How many peas an acre should I sow in corn? The Whip-poorwill or speckled pea will be all right, and will make a good summer crop of seed as the New Era and more growth. I would sow a bushel an acre.

Fertilizing Tobacco.

Bedford County: "I wish to know what fertilizer to put on a piece of gray, sandy soil that was in peas last year, and is now to be planted in tobacco. I have heretofore given the best formula known of for tobacco. It is 300 pounds of 16 per cent acid phosphate, 100 pounds of nitrate of soda, 400 pounds pure, dried blood, 400 pounds of high-grade sulphate of potash to make a ton. Use from 500 to 700 pounds will be enough. I wish to top dress now of Thomas phosphate, 100 pounds will be enough. I wish to know what is the best thing I can use as a top dressing now on crimson clover? If your object is to get a heavy growth of clover, I wish to under, the best thing is to spread stable manure evenly over it, and this will be of the greatest help to corn. If you wish to get the greatest nitrogenous growth, quality of clover, give it a top dressing now of Thomas phosphate, which carries a good percentage of lime, and that too will promote the activity of the organisms on the roots of clover that get nitrogen from the air.

Cabbage and Tomatoes.

Frederick County: "I should like to know exactly about the Danish ball head cabbage to be planted here in July for green keepers and seeders. They will be planted in rows, and I would like to be sure of the best. Where tomatoes are sowed, is it your custom to allow them to grow full length, say, four feet, before taking out the terminal buds? I always enjoy the exactness of your information. Where I live, the Danish ball head cabbage grows very fine, but some of the best authorities have found that it does not do so well as the head. At least, this has been the case in Pennsylvania. Hence, it may not be wise, if you are going to plant on a limestone soil, to use the Danish ball head. Professor R. L. Watts, of the Pennsylvania Experiment Station, State College, Pennsylvania, can give you more information on this point than I can. When growing tomatoes, under glass I stopped them at three feet. In the open garden I let them grow taller, and sometimes in training on a chicken wire netting I train two shoots to the top of the five-foot width wire netting before stopping. This means six feet, and the wire netting is stretched a foot above the plants. On stakes, I stop them at about four feet, and train to single stem.

Speltz or Emmer.

"Please tell me what you know about Speltz or Emmer wheat? Is it a profitable crop to grow here? It has never been grown around here. And you had as well never grow it if you have any interest in wheat. Speltz is never grown any, and I would suppose that it would be apt to get mixed with good wheat and damage the product. West, but what it will make an acre I cannot say, and I suppose that if any was sold, it would grade about with oats as feed. It is evident that a crop adapted to our part of the country and I am not aware that there is any market for it in the East. True Speltz (Triticum Speltz) is not grown to any extent in this country. What is called Speltz here is Emmer (Triticum Dicoccum). Both are similar in character, and only suited for stock feeding.

BOARD SUBMITS ITS FIRST REPORT

Tells What Has Been Done During Year and What Is in Contemplation.

WOULD NOT SELL GAS WORKS

Erection of Municipal Building Urged as One of the Important Projects.

The first annual report of the Administrative Board was forwarded to Mayor Ahlside yesterday. An interesting document, well written, concise and replete with informative data, the report shows the extreme care with which facts and figures were compiled, and the unbiased judgment of a board of men who recognize the limitations imposed on them by circumstances ever which they had no control, and at the same time a confidence that more and better results will be obtained in the year to come.

"Perhaps the briefest and most comprehensive statement of the duties of the board," the report says, "is that the board assumed the duties, responsibilities and authority of twelve Council committees, formerly engaged in the executive work of the city government, which are as follows: Committees on Water, Grounds and Buildings, James River, Stationery and Printing, Electricity, Streets, Relief of the Poor, Markets and Local Assessments, and the Board of Public Health. The board has supervision and control of the operation of the following departments: City Engineer (which includes streets, alleys, sewers, bridges, approaches and all public works), Water Department, Gas Department, Street Cleaning Department, Electric Lighting and Plant, City Home, City Hospital, Cemeteries, Markets, James River, Dock, Park Department, Playgrounds, Electrical Inspectors, City Chemist, Sealer of Weights and Measures, Weighmaster, Harbormaster, etc."

Confident of Better Work.

As expressive of the difficulties with which any new work is undertaken, the report states: "In the outset the board desires to express the conviction that during the first year of its existence it has not been able to measure up to its own conception of what it might and ought to accomplish, having been restrained by certain conditions existing at the time of its organization. It enters upon another year confident of its ability to produce more and better results, sufficient to demonstrate beyond question the wisdom of the creation of the board and its qualifications for usefulness and efficiency."

Improvements Noted.

Attention is called to the fact that, in every instance underground work has been completed before paving of roadbed or sidewalk was begun; that street improvements have been continuous; that delay in transaction of public business, noticeable when the board was in the hands of the committee, has been eliminated; that there has been improvement in the handling of the salary question. Salaries have been generally increased, owing to the necessities of the changes in conditions in the last few years. Labor and material have been obtained by the board at less cost than heretofore, and, as an instance, water meters were obtained at a price nearly 50 per cent below the price paid by the city ever before in the history of the city.

The board having the control of the Gas, Water and Street Departments, the work of these departments has been improved, and it is not very long since their former delay has been eliminated. Extensive improvement, the report goes on, has been made in various sections of the city by the grading of dedicated streets, and extensive experiments have been made in the matter of smooth paving to prove what is the most durable material. Reference is made to the fact that in supplying the

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ARE TESTED AND TRUE.

Our Farm, Garden and Flower Seeds are of the highest quality and germination. Seed Potatoes, Onion Sets, Seed Oats, Grass and Clover Seeds, Cowpeas, Field Beans, etc. We are headquarters also for Poultry Feeds and Supplies, Back-eye Incubators and Brooders. Ask for our free catalogue.

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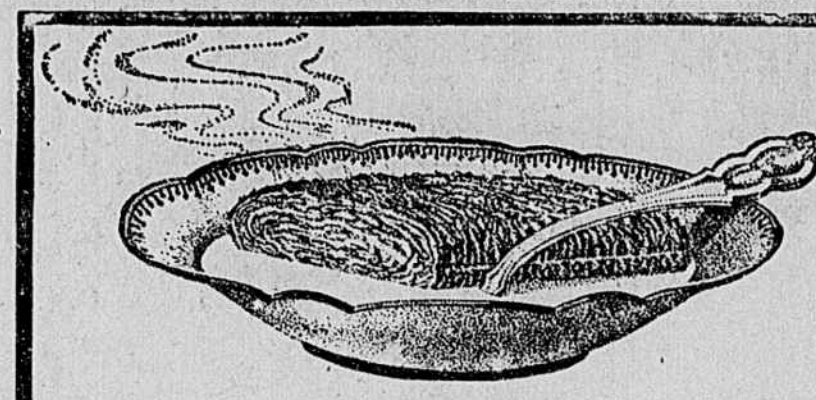
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Start the day with a warm meal that not only gives stomach comfort, but supplies the greatest amount of body-building material with the least tax upon the digestion. Keep the body warm and strong by eating

Shredded Wheat

the food that fortifies you against sudden changes of temperature and which contains more real body-building nutriment than meat or eggs and costs much less. After you have tried all the others you will come back to Shredded Wheat—always the same price—always clean—always pure—always the same.

Always heat the Biscuit in oven to restore crispness. Two Shredded Wheat Biscuits with hot milk or cream will supply all the energy needed for a half day's work. Deliciously nourishing when eaten in combination with baked apples, stewed prunes, sliced bananas or canned or preserved fruits. Try toasted Triscuit, the Shredded Wheat wafer, for luncheon with butter, cheese or marmalade.

Made only by The Shredded Wheat Company, Niagara Falls, N. Y.

wants of the various departments under control of the board the figures have been limited to the actual necessities.

Regrets Lack of Bridge Approaches.

It is remarked that the board realizes the unfortunate condition of the approach to the new bridge, and awaits impatiently such action by the Council as will enable it to take up the matter and push it to a satisfactory conclusion; and that it is ready with plans for a new Ninth Street bridge or for repairing the old structure. Among seemingly lesser things, the board has insisted on the repair of all street defects and on its refusal to allow any street improvement to be made until the economy that has been practiced, the report states that twenty-five blocks have been paved with oil spalls picked up from the streets. Further economy has resulted from the awarding of contract for a large part of the street surface work. And in regard to the extreme western limits of the city, it is extremely desirable that authority for issuing allegations, now resident in the Council, should be conferred upon the Administrative Board.

In answer to the demand for the improvement of Shockoe Creek, the board has, at considerable expense, made a complete survey of the course of the creek from its entry into the river to the extreme western limits of the city, in the neighborhood of the Boulevard or Hermitage Road.

The board has attempted improvement of the Street Cleaning Department of the city by the grading of dedicated streets, and extensive experiments have been made in the matter of smooth paving to prove what is the most durable material. Reference is made to the fact that in supplying the

The jumps are still found to be a bothersome question and it is hoped that some solution of the difficulty may be found, though, the report says, the expense will be inevitable.

Comments City Home Staff.

Some attention is paid to the progress of the city's charity work, and the staff of physicians and nurses at the City Hospital is commended. The work will be improved by the acceptance of the Virginia Hospital as a municipal hospital. The report shows that there has been a decrease in the number of patients, and that several buildings have been completed, and repair work to the City Jail has been noticeably expensive, this year costing more than \$7,000.

Further improvement of the parks is contemplated, and the report states that the expenditure for music in the parks during this year was larger than in any other previous year. The board commends the improvement of the cemeteries, but would be unwilling to undertake any work that would wound the sensibilities of those who have loved ones interred therein, and improvement will not be practicable until the cemetery is completely abandoned. Commemorative notice is taken of the playground work.

Should Not Sell Gas Works.

Detailed attention is paid to the various departments under the control of the board, and especial attention is paid to the report of Mr. Glasgow as to the Gas Department. It is the purpose of the board during the coming year, the report states, to employ the ablest specialist to be found to make and report to the board a complete survey of the distributing system and the defective material used at the places of consumption. The Gas Works is wisely administered, the board finds, and should not be allowed to pass from its control.

In regard to the Water Department, the board states that the protection for the lower congested business district of the city has been greatly improved by the installation of an increased number of fire hydrants. For South Richmond a sufficient supply of clear water for domestic use and a full supply for fire protection have been provided.

In reviewing the work of the City Chemist, the board finds that his sampling of the coal furnished the city has, for the manufacture of gas, resulted in rebates amounting to \$588 during a period of eight months.

The report calls attention to the fact that on the death of the former harbor master the duties of the office were consigned to those of the dock master, and so the salary of one officer was saved to the city. The board also abolished the office of second assistant superintendent of the City Home.

For the further facilitation of its work, the board recommends, if it be possible, that the Council provide by law some plan whereby the Adminis-

trative Board may be able to purchase privately and quietly such small portions of land as may be necessary for the opening or extension of parts of streets or for the construction of sewers or other city facilities, the object being to avoid the increase in prices which follow upon publication of the board's intentions.

Recommend Office Building.

The board also recommends the appropriation of sufficient funds with which to build public comfort stations, probably on Broad Street and on Main Street, and one each in the East and West Ends of the city. Another recommendation is the establishment of a city garage, in which all the automobiles and vehicles of the city may be housed and cared for by a competent mechanic.

It is recommended to the City Council to make provision by bond issue for the erection of a modern fireproof, fully equipped city hospital; for the erection of a commodious and complete court and office building, estimated at about \$750,000, and for the erection of an ample, practical and comfortable auditorium on a separate site, without adjunction of attachments of any kind. Unqualified endorsement is given to the bond issue for street improvement.

SNOW NO BARRIER TO RAPID FLIGHT

Boothe Flees in Bare Feet and Night Clothes to Escape Assault.

(Special to The Times-Dispatch.)

Tazewell, Va., February 16.—With the thermometer hovering around zero, and the wind blowing a severe gale, Joe Boothe, a respected citizen of Plagah, who has a wife and eleven children, had the unusual and painful experience of being forced to run a mile through the snow on Saturday night, barefoot and in his night clothes, being pursued by Jim Howery, of the same community, with whom he had a fight. It is alleged that Howery went to the Boothe home and started a quarrel with Boothe, who hit him with an ax handle. Howery immediately attacked Boothe. They fought for some time in the house, and later adjourned to the yard, where they continued to fight with fists and knives. It soon became apparent to Boothe that he was being defeated, and he immediately took flight over the hills and fences to the home of O. E. Hopkins, where he was given shelter for the night. Doctors were summoned yesterday, and he was taken to Dr. J. W. Witten's Hospital at North Tazewell, where every effort is being made to save his life. It is believed that Boothe's feet will have to be amputated, they were so badly frozen. The most severe blizzard and snow of the winter prevailed in this county yesterday and this morning. The snow has fallen to the depth of several inches, and the mercury has been near zero.

The February term of Tazewell Circuit Court opened here to-day, Judge Kegley presiding.

For Sale

A rare opportunity is offered to engage in a profitable wholesale grocery business in Petersburg, Va. This business enjoys a large city and country patronage, is incorporated, and has been established for more than twenty-five years. The death of the owner is the only reason for selling.

The store, consisting of all modern improvements for the use of the business, can be leased on moderate terms.

For further information, apply to X. Y. Z., P. O. Box 222, Petersburg, Va.

STARVATION RATE OF WAGES IS PAID

Women Confectionery Workers in New York Receive as Low as \$4.50 a Week.

Albany, N. Y., February 16.—Low wages are paid in the confectionery and paper box industries of the State, the State factory investigating commission reported to the Legislature to-night, along with an urgent recommendation for better remuneration for those classes of employees.

The report shows that in Greater New York city confectionery workers generally obtain \$5 a week. The majority of male workers receive between \$8 and \$14. More than one-half of the men receive less than \$10 a week. One-half of the women get less than \$6 a week, while less skilled ones receive as low as \$4.50 a week.

Deductions for absence and fines and lack of employment during slack periods lower the incomes.

The paper box industry, the majority of male workers are rated under \$5.50 a week. Almost 2,000 women, or nearly one-half of all over eighteen years of age in the trade, earn less than \$6 for a week's work. More than 700 girls under eighteen, or almost half of those reported, earn less than \$5 a week.

"These figures show conclusively the necessity for an improvement in wages," said Lieutenant-Governor Wagner, chairman of the commission. "No woman can live properly and be self-sustaining on a wage of \$5 or \$6 or even \$7 a week, yet we find thousands of women receiving those amounts."

ORATORS TO COMPLETE.

High Schools of Mecklenburg Preparing for Contest.

(Special to The Times-Dispatch.)

Chase City, Va., February 16.—Much interest is being taken in the inter-school oratorical contest to be held in the Town Hall of Boynton on the night of February 27. All of the high schools of the county have selected speakers to represent them in this greatest of all oratorical events of the year, and enthusiasm is running high. A handsome trophy cup will be presented the school carrying off first honors, and this, together with the honor of being the best orator in Mecklenburg, is stimulating those taking part to their best efforts.

It is the plan of the oratorical committee, of which Division Superintendent F. C. Bedinger is chairman, to make this a contest of the highest order, and thereby bring about renewed interest in the study of English and good standing are admitted to the contest. The following will send representatives: Clinton, Skipwith, Clarksville, Baskerville, Union Level, La Crosse, Chase City, South Hill and Gold Leaf.

FACTS No. 9

Fertilizing for Greater Profits

The great economic question in Agriculture is: "Does it pay?"

It is hardly worth while to deal with factors that show negative answers. Broad practices like the use of commercial fertilizers on the farm are accompanied with large gains to the farmers or they would not be universally employed.

Henry Ward Beecher says: "We believe that soil likes to eat as well as its owner, and ought, therefore, to be liberally fed."

In order to show how expenditures for fertilizers compare with expenditures for other purposes we give the following interesting facts:

One Southern State, not the largest one either, spends every

year for jewelry \$20,000,000

Income from the expenditure—Nothing 00,000,000

This same state spends annually for insurance \$17,000,000

Returns in premiums and in paying losses \$10,000,000

Net loss each year from this source alone \$7,000,000

It is who will say that insurance is a poor investment.

It is a necessity and when losses come proves a blessing.

The same state spends every year for commercial fertilizers about \$25,000,000

Estimated increase in crop production from this source alone—\$65,000,000

Or an added income of \$2.60 for every dollar spent on fertilizers.

Net profit from the use of fertilizers \$40,000,000

Increase is more than \$2.60 for every \$1.00 on good farms

where the lands are well prepared, and the fertilizers do not

have to do it all.

Maximum net return on one ton of fertilizer where applied under

ideal conditions (not what may be done but what has been done) \$400

This is possible on almost any ordinary farm in the cotton belt if rota-

tion and deep tillage are thoroughly practiced for a few years.

It is of course true that the fertilizer did not by itself give such results.

It was a combination of good fertilizer, good farmer and good farming.

There is no case on record where the application of fertilizers did not

pay well on the investment.

What other business or material has such a universally good record?

The question is never: "Shall I use fertilizer?" but "How much?" and

"How often?" and "What must I do to make the most out of the investment?"

Write for free Bulletins on Cotton and Corn Culture.

SOIL IMPROVEMENT COMMITTEE

Southern Fertilizer Association

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